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**PGIIS-839 B-19**  
**M.Sc. III Semester Degree Examination**  
**MICROBIOLOGY**  
**Food and Dairy Microbiology(soft core)**  
**Paper : 3.3 SC**

**Time : 3 Hours**

**Maximum Marks : 80**

**SECTION-A**

1. Write brief notes on any **Ten** of the following : (10×2=20)
- a. Radurization
  - b. High meat
  - c. Maillard reactions of food
  - d. Delay of self decomposition.
  - e. Low acid foods
  - f. Flash pasteurization
  - g. GRAS
  - h. Food intoxication
  - i. Wood smoke
  - j. Condensed milk
  - k. Sour or acid flavor of milk
  - l. Bacterial ropiness

**SECTION - B**

- Write short notes on any **Six** of the following : (6×5=30)
2. Drying of egg and egg products.
  3. Evidences of spoilage of fish.
  4. Gastroenteritis and conditions necessary for an outbreak.
  5. Packaging materials and their sanitation.
  6. Preparation of acidophilus milk.
  7. Contamination of food during handling and processing.
  8. Effect of low temperature on microorganisms.

**SECTION - C**

Answer any **Three** of the following :

**(3×10=30)**

9. Discuss the contamination, preservation and spoilage of milk and milk products.
  10. Write a detailed account on food additives.
  11. Discuss the food as substrate for microorganisms.
  12. Write a detailed account on general principles of food spoilage.
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**PGIIS-837 B-19**  
**M.Sc. III Semester Degree Examination**  
**MICROBIOLOGY**  
**Immunology and Immunotechnology**  
**Paper : 3.2 HC**  
**(New)**

Time : 3 Hours

Maximum Marks : 80

**SECTION-A**

1. Write a brief notes on any **Ten** of the following : (10×2=20)
- a. Phagosome.
  - b. Opsonisation.
  - c. RIA.
  - d. Antigen affinity.
  - e. Antibody cross - reactivity.
  - f. Convalescent antibody titre.
  - g. Western blotting.
  - h. Erythroblastosis foetalis.
  - i. TH cells.
  - j. Lymph node.
  - k. ELISA.
  - l. Mitogens.

**SECTION - B**

Answer any **Six** of the following : (6×5=30)

2. Characteristics of antigens.
3. Physical and chemical structure of antibody.
4. B cell differentiation and development.
5. Serologic test for syphilis.
6. Cytokines.
7. Autoimmune diseases.
8. Complement fixation test.

### SECTION - C

Answer any **Three** of the following :

(3×10=30)

9. Discuss in detail about Innate and Acquired immunity.
  10. Write an essay on Tumor and transplantation immunity.
  11. Explain the production and applications of Monoclonal antibody.
  12. Discuss the types of vaccines and their production; add a note on vaccination schedule.
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**PGIIS-838 B-19**  
**M.Sc. III Semester Degree Examination**  
**MICROBIOLOGY**  
**Medical Microbiology and Diagnostics**  
**Paper : 3.2 HC**  
**(Old)**

Time : 3 Hours

Maximum Marks : 80

**SECTION-A**

1. Write a brief note on any **Ten** of the following : (10×2=20)
- a. Endocrine system.
  - b. Lymph Nodes
  - c. Homeostasis
  - d. Zoonotic Diseases
  - e. Host defenses
  - f. Koch's postulates
  - g. Rocky Mountain Spotted Fever
  - h. Leprosy
  - i. Taxoplasmosis
  - j. Characteristics of Antibiotics
  - k. Pathogenecity and Pathogenesis
  - l. Superficial Mycosis.

**SECTION - B**

Write notes on any **Six** of the following :

(6×5=30)

2. WHO guidelines on Antibiotics.
3. Shigellosis
4. Typhoid Fever

5. Dengue
6. Hepatitis
7. Evasion of pathogens
8. Identification methods of staphylococci.

**SECTION - C**

Answer any **Three** of the following :

**(3×10=30)**

9. Give a detailed account of aetiology, symptoms, diagnosis and treatment of Rabies.
  10. Explain in detail with suitable examples aetiology and treatment of two protozoan diseases.
  11. Give a detailed account of aetiology, symptoms diagnosis of urinary tract infections.
  12. Explain the development of drug resistance and its consequences.
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